



Established 1848.

COLMAN'S RURAL WORLD

NORMAN J. COLMAN, EDITOR.

Published weekly at 721 Olive St., Rooms 100, 104, 108 and 110 Chemical Building, corner Olive and Eighth Sts., St. Louis, Mo., at one dollar a year. Eastern Office, Chalmers D. Colman, 620 Temple Court, New York City.

Letters should be addressed to COLMAN'S RURAL WORLD, 721 Olive St., St. Louis, Mo. Advertising rates furnished on application. Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the United States.

The members of Clay Grange, Clay Co., Mo., propose to hold a rousing picnic sometime in August, when members of the order from other counties will be invited. The master of the National Grange, Mr. Aaron Jones, is expected to address the gathering. Hon. Norman J. Colman has likewise received an invitation to speak. Twenty-five or thirty years ago grange picnics were held in nearly every county of the state, and were of colossal proportions, frequently ten or fifteen thousand people being present. No organization has been of so much benefit to farmers as the grange.

SISYPHUS' TASK.

Our Washington correspondent, Mr. S. F. Gillespie, in "Pebbles from the Potomac," suggests that effort should be made to get the unemployed out of the city and into farms. Would not that be a task as hopeless as that of Sisyphus? Are there not in the crowded ranks of city toilers, in sweat shops and factories, thousands of farm bred boys and girls? Is there not a constant stream of the nation's purest blood from the farm homes into the city, these too becoming polluted with moral and physical debility? And is the cure of the city's festering to be simply the opening of a drain countryward? A more radical and deeper-reaching remedy for theills that affect our body politic is needed. A study of what is causing the boys and girls of the farm homes to seek the city will possibly suggest the remedy sought.

PLANT STUDY ESSENTIAL.

It should not be assumed that plant food consists only of three substances, nitrogen, potash and phosphoric acid, as Mr. S. P. Cox, on this page seems to do. It is true that the three substances named are all that the farmer has usually to consider when it is necessary to feed his crops, because other substances used by plants as food are, as a rule, found in agricultural soils in sufficient quantity to meet all requirements. Among these substances may be named iron, sulphur, magnesium, salt, chlorine, silicon, carbon and others. Water, beyond its purpose as a carrying agent for other substances used by the plant, is itself an important plant food, forming as it does a large part of the weight of the plant. One will understand the purpose of the so-called "essential manurial elements" and how to treat them, by having a more or less comprehensive knowledge of the plant as a whole.

LITTLE LOSSES.

When walking recently in a garden a currant bush was observed which the worms had completely denuded of foliage and the owner's attention was directed to it. He said, "Oh! let them have that," at the same time intimating that there would be enough left. Though no remark was made, the query was entertained. Does this man know that the currant worm is not built on the leaving plan? "Mr. Worm" only leaves when nothing is left. We would like to see that garden at this date.

The following morning a gentleman was met who had on his attractive grounds three choice cherry trees, all of which bore fruit and in abundance last season, but one of them lost its vitality soon after fruiting and in the early fall lost its foliage. In the early spring this tree was found to be dead. One of the other two soon after leafing out began to show the same symptoms that did the one that died. There were no external evidences of insect ravages and the owner was puzzled to know what caused the death of his trees. He was calling on any one whom he regarded as authority in horticulture to get information. He said: "I can't afford to lose my trees. I want the fruit." He was told that he might get some assistance from the horticultural at the Missouri Botanical Garden, and he at once went to get all the aid he could, though his residence was in the opposite direction from the Garden. The man's every action showed that he felt it was necessary to be more valuable to lose by neglect or ignorance.

Reader, is there a lesson for you in the recital of these two incidents? Do you think it doesn't matter much if you lose just one bush or one little calf? Right estimates will make material difference in bank accounts.

SPECIAL OFFER.

While the regular subscription price for the RURAL WORLD will remain at one dollar per year, yet, in order to more than double our present circulation for the year 1900 we have determined for a brief period to allow all of our present subscribers to renew their subscriptions by sending the name of a NEW subscriber with their own for one dollar—thus getting two papers for one year for only one dollar. In all cases, however, the additional name or names must be new subscribers. Renewals will not be received at fifty cents, except when accompanied by a new subscriber. Two NEW subscribers at the same time, however, will be received for one year for one dollar. We are of the opinion that railroads are often unjustly criticised and as often fail to receive merited commendation. There are frequently good grounds for complaint against railroads, but let us be just.

PEBBLES FROM THE POTOMAC.

Editor RURAL WORLD: In these days when specialists in every department of life's affairs become more and more important, the following story of that magnetic orator and profound statesman, Daniel Webster, which we find in our scrap-book, will, we think, bear repeating:

"Farming, fishing, horses, cattle, pigs and hens—these were Mr. Webster's favorite themes. He knew everyone of his cattle by name as well as he knew the names of his brother Senators. Of his garden he was very proud, and here he would spend a portion of each day pulling weeds and hoeing vegetables.

"A young lawyer of the village once came and asked him what he had better do to study to build himself up in his profession. "Turnip seeds," was the laconic reply. The disciple of Blackstone followed his advice. He studied up everything that bore upon the subject of turnips, until he became a master of the principles of that vegetable. A year or two afterward a neighboring farmer originated a new turnip, from the sale of which he expected to make a fortune. Another neighbor began to raise and sell the same seed and a lawsuit resulted. The originator of the seed came to retain Webster to prosecute the case. Webster replied:

"I am not as well booked upon turnips as I ought to be, but there is a young fellow over at the village who knows all about them. Go and get him. He will win your case."

The farmer posted off and engaged the other man. When the trial came of the lawyer astonished judge, jury and audience by his profound learning on the subject of turnips. The case was triumphantly won, and the young lawyer started on the road to fame and fortune."

LABOR PROBLEMS.—To one who has studied the deplorable environments which surround the workman in great cities it becomes apparent that any scheme whereby his condition could be materially improved would be heartily welcomed. Who has not read of the tolls of the sweat-shops? Who has not sympathized with these unfortunate toilers that remind us of Sisyphus of Greek mythology, whose eternal task was to roll to the top of a very steep hill a huge stone, and upon reaching the summit to find, alas! that the rock rolls down, thus obliging him to daily resume his task. Homer pictures in these two lines his awful task—

"Again the restless orb his toil renews, Dust mounts in clouds, and sweat descends in dew."

But who can picture the hopeless task of these toilers who must from day to day resume their terrible burden. They know nothing of the fields of ripening grain. Their children are denied even a day in the woods, where the blossoms bloom upon the mossy banks of the mirror-like streams; to them the bleak walls and barren pavements afford a shelter and place of recreation. Sir Herbert Spencer once said that every man who works for wages is, in a measure, a slave. To compare the sweat-shops with well-lighted offices in modern office buildings would be an injustice to the management of the latter. If those who are employed in these modern buildings are, in a measure, industrial slaves, the condition of those who toil in the sweat-shops baffles the power of language to describe! Labor laws and labor organizations have united in an effort to better the condition of this unfortunate class, and have to some extent, eliminated many of the disadvantages to which it is subjected. Without the helping hand of the people dared not venture to better their condition, for, like the sailors upon the seething deep, who tried to avoid the monster Charybdis, they fell an easy prey to Scylla and were destroyed.

Organized labor could engage in no better cause than to locate these toilers upon the available lands of the United States. Enormous sums of money expended fighting corporations and trusts would place thousands of these industrial people on cheap lands, thus enabling them to become more useful citizens. The fruit-bearing lands of the sunny South, the wild lands of the West, the fertile valleys beyond the mountains—all pre-

ARE RAILROADS PAID TOO MUCH?

We are inclined to call in question or at least to ask for the proof of the statement made by Mr. Allhouse and acquiesced in by Mr. Lyon, that "railways are paid much more than they should be for carrying mails (see Practical Farm Paper No. 63). It may be so, but we have been given to understand by those in a position to know that the compensation allowed by the Government for the service was comparatively small. We say "allowed" advisedly, for, if correctly informed, the Government officials arbitrarily fix the compensation, the railroads having but little voice in the matter. If our correspondents or others can show that the railroads are paid too much for the service referred to we will be pleased to have them do so.

We are of the opinion that railroads are often unjustly criticised and as often fail to receive merited commendation.

There are frequently good grounds for

complaint against railroads, but let us be just.

It is said that the daily papers, or a great many of them, are serious offenders in this line, but the class of papers reached by the Loud bill is sent into the farm home, where, to the shame of many farmers, it is said, is the only paper in the house and every line is carefully read and re-read until it is known by heart and is a part of the very mind of the reader.

The farmer who needs use fertilizers, and what successful farmer does not—this matter of fertilizer mixtures is of very great importance. It stands to reason that the plant food needs of crops are pretty closely shown by the quantities of such plant food found in the crop upon maturity. Fortunately, the experiment stations of the various states have made exhaustive studies of the chemical composition of crops. Even a superficial examination of such tables of analysis shows very plainly that all crops do not feed alike. From this fact has grown the great variety of fertilizer mixtures offered farmers by manufacturers. While this proportioning of mixtures for various crops is scientifically correct as a rule, the common practice is to make such mixtures with the various grades of crude fertilizer materials rather than the actual needs of the various crops.

There is one point to guard against.

Editor RURAL WORLD: I will guarantee that if Mr. J. G. Allhouse, and I could talk on the Loud bill for ten minutes we would agree perfectly. Somewhere in the eastern part of the United States there are published about a dozen monthly literary (?) papers. They are of from 16 to 32 pages per issue, badly printed and illustrated; are on miserably poor paper and are supposed to cost the reader from 25 to 50 cents per year, with anything from a silk dress to a house and lot in

just.

It is said by those who are in a position to know the facts that few of these papers have any real subscription list worth mentioning, but are kept up by a high price for advertising, paid for on a basis of tens of thousands of sample copies sent out each issue. Fully 90 per cent of this advertising is of a class that no respectable paper will allow to stand in its columns; electric belts with illustrations, fortune tellers, faith cures, bogus jewelry, gambling devices, "weakness cured" and worst of all suggestive advertisements of medicines and appliances that have made outcasts of thousands of young women all over the land.

The primary object of the Loud bill was to lower the deficit by the elimination from the mails, books, novels and "sample copy" papers, published periodically by large concerns. Legitimate publications were to be allowed to send out sample copies of regular issues of their papers up to a certain per cent of their subscription list at round rates, and I agree with Mr. Allhouse that railroads are paid much more than they should be for carrying the mails.

Even reputable journals will get imposed upon sometimes and carry for a time questionable advertising matter, but they usually decline any renewal of contracts after the nature of the advertisements is known.

June 9, and we have had general rains. Crops are not all that we could desire them to be, but we have reason to be thankful for the gifts of nature. Early planted corn is beautiful, the lot I planted without breaking the tobacco stubble is shoulder high and is much ahead of any other in the county. The tobacco crop is generally transplanted and that on soil land, like corn on like land, is being damaged by cutworms, webworms and stem borers.

Sometimes early plowing is a sure preventive of such damage, but this year we see no difference in land broken in February and May. Over 20 years ago I remember of my father breaking a "headland" of three acres, through the center of the same fourteen-acre field that I broke this spring. This headland was broken early in March; then rains set in and no more plowing was done until late in April. On the early breaking cutworms did not destroy a dozen plants of corn, while they took nearly every plant on the later plowed land.

I wish every reader of the RURAL WORLD who is interested in spring grain for feed, could see my acre of beardease spring barley, as it is certainly the most beautiful plot of grain I ever saw, about 40 inches high, not a plant down, even on the richest spots, and such blades as are seldom seen on any other grain. Now please remember that I am not "booming" this grain because I have plowed it, but that is the result of the soil, as the plants cannot make use of it as food when insoluble; hence the quota of phosphoric acid is commonly doubled. On this basis, the corn crop should receive per acre, 17 pounds of nitrogen, 50 pounds of potash and 62 pounds of phosphoric acid. Expressed in terms of ordinary fertilizer mixtures, this would mean an application per acre of 1,000 pounds of a fertilizer containing:

Nitrogen..... 17 pounds

Available phosphoric acid..... 6 per cent

Actual potash..... 8 per cent

Few farmers will use 1,000 pounds per acre on corn, but it is quite sure that when not enough fertilizer is used the crop draws on the reserve supplies in the soil—that is, the soil is being robbed. A soil systematically robbed more or less, quickly falls a prey to all forms of agricultural evils, not only fungous diseases, but unfavorable mechanical conditions, which is about the same thing as sterility at the time and place of the crop.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

At this writing, it is impossible to tell the percent of damage done to the crop and fruit. I have been told that the damage is much worse north and northwest of here. I never saw crops here looking better than before the storm. Now it is a hard matter to save the grain. Much of it can only be cut one way and some of it not at all. The storm has made us lots of extra work and we cannot get any help. Hands are very scarce. We have so much to do now that should be done right away that some of it will have to be neglected. While we are working hard to save one thing, another is going to waste. "Too many iron in the fire," this time; some of them are bound to burn.

We need more men like Chas. D. Marion, who are in the field of agriculture, to help us to better the condition of the soil.

# The Dairy.

## SUGGESTIONS.

Don't Wait too Long for Others.

If one wants to engage in dairying and cannot induce enough of his neighbors to join with him so that a creamery or cheese factory can be made successful, he need not hesitate to go ahead on an individual basis. And if he makes a success of the business this will do more to start others along the same line than will any amount of talking unaccompanied by any action.

YOU LEAD, OTHERS WILL FOLLOW.

During the period of time when the dairy industry is being developed in a section of country it often happens that individual farmers want to engage in dairying before there is sufficient interest in the community to make it possible to establish a successful creamery or cheese factory. Must one, therefore, wait until the interest grows, and others are ready to go into the dairy business? If so, the development would be slow indeed. Dairying is a line of work that can be engaged in on a community basis or independent of neighborhood co-operation. For the great majority the community plan is much the better, hence the RURAL WORLD advises its readers to patronize a creamery or cheese factory when one is in reach, and to encourage the establishment of these enterprises in their communities. But if one is not within reach of a creamery or cheese factory and there is no immediate prospect of one being established, it is still quite possible to engage in either butter or cheese making.

## PRIVATE DAIRYING PAYS.

As a matter of fact there are many who declare and give figures to prove that they can make more out of independent dairying than can be made on the co-operative plan. This will depend somewhat on the market, but more on the skill that is put into the business. There is little difficulty in finding a market for first-class butter and cheese at good prices, so the principal consideration is to learn how to make the best good. This can be done by anyone who will go at it with the consciousness that there is much to be learned along these lines, and room for the exercise of great skill.

## ASK QUESTIONS.

The first thing to do before engaging in butter or cheese making on a commercial basis is to put one's self through a severe self examination. He should ask himself a lot of questions like these: What is the difference between a Jersey cow and a Shorthorn cow? Do results that have been obtained show that the Shorthorn or the Jersey to be the better dairy animal? Should a cow kept for dairy purposes be handled and fed differently from one kept for raising beef cattle? What sort of feed must be given a cow to enable her to give the largest yield of milk? What effect does food eaten have on the character of the milk? If butter or cheese is to be made, what should be the character of the milk? Will food change the essential character of milk? What is the most effective means of raising the percentage of butter fat in milk? If butter is to be made, what means may be employed to get the butter fat out of the milk? What is the best means of doing this and why? What is the best means for determining the quality of milk? When should cream be churned? What causes cream to sour? What effect does the souring of cream have on butter? And so on almost without end. By putting the mind to work asking questions one will soon reveal to himself that he has lots to learn; and if he will then go to work to get the information called for by this questioning he will soon be ready to go to work and on a sound basis.

## PRIVATE DAIRYING.

At a meeting of the Vermont State Dairy Association a paper was read by Mrs. Carrie Nelson of Ryegate, who said she believed that the private dairy, if properly managed, could make a product that would compare favorably with that of the creamery and usually bring as high a price. She spoke of the necessity of clean stables, clean bedding and clean utensils, but we must note what she said about the effects of food on flavor of butter, as a certain professor has lately advanced the idea that it has no effect. Several years ago in August her cows were running in a field that had been lately top dressed. For two or three different weeks her butter dealer wrote her that the butter was "off flavor." The cows were turned back into pasture, and soon the dealer wrote, "Butter is all right," and she took two first prizes on her butter. When the corn was harvested, they were turned into another top-dressed field, and quickly came another report, "Butter again off flavor."

## PUSHING THE DAIRY INDUSTRY.

The creameries at Alma and Blackwater, Mo., have been leased to the Brady-Meriden Creamery Co., and will be operated by them in connection with their big Kansas City plant. These people are pushing the creamery business in Missouri as it has never been pushed before and if they receive the co-operation they are justly entitled to their efforts will go a long way towards making Missouri one of the greatest dairy states in the Union. These people are pushing the creamery business, have had years of experience in the business and have an excellent market for their products direct to the grocery trade, and are therefore in position to give milk patrons satisfactory prices.—Harrisonville (Mo.) Democrat.

DAIRY FORM has more to do with the good milk cow than dairy breeding. The lacteal function is very largely an individual one, and while more good milkers are to be found in some breeds than in others, good milkers are to be found in all breeds. The successful dairyman will do well to keep this fact in mind and so pay more attention to dairy form than to pedigree. With Shorthorn cows, Polled Angus cows and just common scrub cows showing up records of over 300 pounds of butter, it is very evident that the so-called dairy breeds have no monopoly of the milking function.

MISSOURI COWS.—Messrs. Pethebridge and Lathe tested two wet two Jersey cows belonging to Mrs. Samson Clark. The old cow's milk showed 10 per cent butter fat and a daughter 8½ per cent. The gentlemen saw both cows milked so that there can be no fraud in the test. Mr. Pethebridge pronounced the old cow the best he ever saw.—Palmyra (Mo.) Herald.

Shoo-Fly Mfg. Co., Philadelphia, Pa. Ames-Dodge Co., Neb.

We have used several barrels of "Shoo-Fly" the past four years with satisfactory results.—STANDARD CATTLE CO.

## OPINIONS

Of a Long-Time Dairyman.

Editor RURAL WORLD: I always feel interested in the Dairy Department of your valuable paper, and read with pleasure its correspondence from noted dairymen from nearly every part of the United States. In this (Crawford) county, Kansas, we have six creameries and two skin stations. These, I think, are profitable for farmers to patronize. The keeping of dairy cows is a great benefit to a farm.

If the cows are cared for as they should be, they will be put in stanchions or tied with a halter or chain and will be well fed. If managed in this manner, the mature, which should all be saved, can be easily cared for. Scrape it all up and haul it out on the field, scattering it over the ground, not throwing it on a reckless manner, a forkful in a place. A load of manure put on the field in the right manner, will, I believe, do 50 per cent more good than a load put out haphazard.

BEEF VS. DAIRY FORM.—Referring to the Minnesota Experiment Station's dairy tests, a statement concerning which I find in your issue of June 6, on the "Beef Form vs. the Spare and Angular or Beef Form." I see there is a mistake in the addition of the figures giving the milk from the dairy cows. According to the amount that each dairy cow has to her credit, the average is 8.87 pounds of milk instead of 6.72 pounds, as the table has it.

The six cows with the beef form make an average of 5.07 pounds of milk, which is reported as 7.74, and is conclusive evidence that it does not follow that a cow giving a good milk is a profitable cow in the dairy.

I can not comprehend why this statement is made, as the cows with a beef form left a net profit of \$10.37 each, while the cows with the dairy form made a net profit of \$3.11 each. Here is a difference of \$7.74 in favor of the cow with the dairy form; or for the entire six cows with the dairy form, there will be the sum of \$66.44 gain over the six having the beef form.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.  
Audrain Co., Mo.

The Executive Committee of the Dairy Association will be glad to hear through the RURAL WORLD from the dairymen of the state relative to the location of the next convention of the Association. Secretary Chubbuck has a number of letters on file from western Missouri people asking that the next convention be held in Kansas City. The wishes of other sections of the state will be fully considered if they are made known. If not, as Mr. Collins says, no one can find fault with the western Missouri dairymen if they capture the convention.

## THE MISSOURI DAIRY MEETING.

Editor RURAL WORLD: I have just read Mr. Dille's letter in the RURAL WORLD of June 20, asking that the next meeting of the Missouri Dairy Association be held in Kansas City. It seems to me that there is a good bit of selfishness in such a request. The last meeting was held at Mr. Dille's own town, Holden, which is within 30 miles of the western line of the state, and now he asks that the next meeting be carried still further to the west, even to the state line. What claim has the western part of the state on the Association that that section should be favored so much more than the eastern part? If my memory serves me aright, the western part of the state has had practically all of the dairy meetings. The first regular meeting of the Association was held at Jefferson City, and the next six meetings were held at points westward of the capital. Then the Association managed in some way to get to the eastern side of the state and hold a meeting at Louisiana. Palmyra wanted the next meeting, but we were told that it would not be well to hold two meetings in succession so close together as are Louisiana and Palmyra, and the meeting was held at Brookfield. We hoped then to get the next one in eastern Missouri, but the meeting was still westward and Holden got the prize. And now Kansas City is after the coming meeting.

An eastern Missouri dairyman, I want to protest, and ask that the meeting be brought eastward at least to some point near the center of the state. I hope other dairymen in the eastern part of the state will make themselves heard on this subject; if not and our brothers in western Missouri are, they will probably get the convention and not be blamed for doing so.

A. H. COLLINS.

HOW TO MAKE CHEESE.  
How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of the amount for cream, leaves a balance of 6.267 pounds, being 75 gallons, which, at 2¢ per gallon, is \$2.55. Is not this a clear capture the convention.

A. H. COLLINS.

HOW TO MAKE DAIRY MEETING.

How Much Butter and Cheese From Milk?

Will you give directions sufficiently explicit so that a person with little experience could make good cheese? I have the appliances for making in the old way, that others have used. While I have made butter for a long time, and keep from 12 to 20 cows, I do not know how much butter should be made from 100 quarts of milk, neither do I know how many pounds of cheese should be made from that amount. I wish to know which would be most profitable, to make my milk into butter or cheese. Either way, it must be made up to maturity, as there is neither creamery nor cheese factory in this section. There is a good market for cheese, as everybody makes butter, and there are creameries all around us, but too far for that cow that gives a little amount of milk and will even test six per cent.

EIG VS. SMALL DAIRY COW.—I have handled dairy cows and helped to handle them ever since I can remember. They were not all dairy cows, but were kept as such. My experience is that the cow that gives a big flow of milk and that will test from three per cent up is more profitable than the cow that gives a small amount of milk and will even test six per cent.

THE SKIM MILK amounts to something to the farmer; but nothing is said about it in the report. I do not think this is a fair test, as the skim milk is generally conceded to be worth 2¢ a gallon for calves or pigs. We note that the cow that gave the most milk gave 3.26 pounds more than the cow that gave the least milk. Deducting one-fourth of



## Live Stock.

Aug. 16.—Ed. Burroughs, El Paso, Ill., Poland-China. Sept. 4.—L. M. Monsees Sons, Smithson, Mo. Mules, cattle and Poland-China. Sept. 19.—W. Lovelace, Beloit, Ill., Poland-China. Oct. 3.—M. Caldwell, New Holland, Ill., Poland-China. Oct. 4.—H. Cooper, Pittsfield, Ill., Poland-China. Oct. 18.—H. O. Minnis, Edenburg, Ill., Poland-China. Oct. 4.—Martin, Flynn, Shorthorns. Oct. 5.—E. S. Donahay, Shorthorns, Newton, Ill. Oct. 10.—T. C. Fonting & Sons, Moweaqua, Ill., Horses. Oct. 11.—C. H. Ponting & Sons, Moweaqua, Ill., Horses. Oct. 16.—J. K. Alexander, Edenburg, Ill., Shorthorns. Oct. 17.—B. Hart, Edenburg, Ill., Poland-China. Oct. 17.—Arthur H. Jones, Shorthorns, Delaware, O. Oct. 17.—C. Ott, Shorthorns, Hedrick, Ill. Oct. 18.—H. O. Minnis, Edenburg, Ill., Poland-China. Nov. 14.—Arthur Cowan, Jr., Paulina, Ill., Shorthorns. Nov. 15.—S. P. Emmons, Littrell and others, Mexico, Mo. Shorthorns. Nov. 19.—W. C. Chapman, Mt. Leonard, Mo. Walter Waddell and Thos. Sawyer, Lexington, Mo. C. B. Smith, and N. W. Leonard, Fayette, Mo. Herfords. Sale at Kansas City, Mo. Dec. 11 and 12.—K. A. Anderson and J. A. Funkhouser, at Kansas City, Mo. Herfords. Dec. 13 and 14.—H. C. Duncan and Geo. Bushnell, at Kansas City, Mo. Shorthorns. March 5, 1901.—T. J. Wornell, Mosby, Mo. Shorthorns, Kansas City, Mo.

### STABLE CLEANING TIME.

This is the season of the year when every stable should be carefully cleaned out, whitewashed and disinfected, says the "Farmers' Advocate." No matter how healthy one's live stock may be, there is always a possibility of some hidden disease "bug" finding lodgment in some damp, dark corner, which may find, later on, favorable soil upon which to develop in an animal whose system, from some causes, has become susceptible. Sunlight is the great germ-destroyer; therefore, let it in. Open doors and windows, thoroughly clean out gutters, stalls and passages. Use lime freely, sprinkling it into all corners, whitewash walls and ceiling, adding, if possible, a little crude carbolic acid. A whitewashed stable is lighter, looks cleaner, more comfortable and larger, and smells sweeter. This kind of work can be done at odd times without detracting from the regular work, and will be appreciated by man and beast when stabling time comes next fall.

### MILLET AS A FEED FOR CATTLE.

We noticed in a recent issue of the "Prairie Farmer" an inquiry about millet as a feed for cattle and horses. We have sown from five to fifteen acres of millet every year for the past five years and have fed it to both horses and cattle, writes one of its correspondents. We agree with what has already been said about it as a feed for horses, as it seems to act upon their kidneys, and if it has been their exclusive roughage they will come out very weak in the spring, thus rendering them unfit for hard work. However, we have never seen any ill effects upon our cattle and if your correspondent will feed his cows and calves a variation, which is always better, such as corn fodder in the daytime, he may fill up his racks at night with millet and be assured there will be no harm done his cattle. Such has been our experience. We wintered cattle in 1897 without any clover hay, nothing but millet with plenty of good corn stover, and they came through in first-class condition, thrifty and healthy, leaving no bad effects whatever. There is nothing we can sow here that will turn out more hay to the acre than millet, if the seed-bed is properly prepared. We sow at the rate of three pecks to one bushel per acre according to the fertility of the soil and cut as soon as it is headed, not allowing any of it to seed if possible. If the weather is favorable we can cure as other hay, but if it threatens to rain we soon follow the mower with rakes and shock it up in good-sized shocks, then when cured haul it into the barn.

### CATTLE RAISING IN FLORIDA.

There are a great many herds of cattle running at large in this state, but, unlike the Western cattle, they have no attendants. The stockmen and their cowboys round the cattle up once or twice a year, brand the calves and pick out the cattle which they wish to dispose of, writes B. Ames in the "American Cultivator."

The business is a fairly profitable one, as the cattle can find for themselves all the year around, but the meat lacks the flavor of grain-fed animals.

The stockmen have to burn the grass over, and do this by taking a section lying between two savannahs to prevent the fire from spreading.

Many of the cattle raised in this state have been shipped to Cuba, via Tampa, during the last two years, where they bring a fair price.

At a recent convention held by the Stockmen's Association at Kissimmee, Professor Stockbridge advocated the feeding of cassava and velvet bean, both of which can be grown at a small cost. He says that beef may be made on this feed at a cost of two cents a pound, and an experiment shows that in 40 days, 12 head of cattle gained over three pounds a day, while in 12 different tests in Missouri, Kansas and Iowa, the gain was less than two pounds on various feed stuffs.

The cattle laws in this state seem peculiar to strangers, for in most states the stockmen have to fence their cattle in, while here the farmers and truck gardeners have to fence the cattle out. The cattlemen were the first settlers here and they appear to have had their own way in law making ever since, but if a county so desires it can petition the Legislature to make it a no-section, and then the cattlemen leave for other parts.

### HOW'S THIS?

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

F. J. CHENEY & CO., Profs.

106 State Street, Toledo, O.

We, the undersigned, have known F. J. Cheney for the last 15 years, and believe him perfectly honorable in all business transactions and would like to carry out the arrangement made by their firm.

West & Truax, Wholesale Druggists, Toledo, O.

Walding, Kinney & Marvin, Wholesale Druggists, Toledo, O.

Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price, 75¢ per bottle. Sold by all Druggists. Testimonials free.

Hall's Family Pills are the best.

### CATTLE BARRED FROM MISSOURI.

Quarantine Proclamation Issued by Gov. Stephens.

Aug. 16.—Ed. Burroughs, El Paso, Ill., Poland-China. Sept. 4.—L. M. Monsees Sons, Smithson, Mo. Mules, cattle and Poland-China. Sept. 19.—W. Lovelace, Beloit, Ill., Poland-China.

Oct. 3.—M. Caldwell, New Holland, Ill., Poland-China. Oct. 4.—H. Cooper, Pittsfield, Ill., Poland-China. Oct. 18.—H. O. Minnis, Edenburg, Ill., Poland-China. Oct. 4.—Martin, Flynn, Shorthorns. Oct. 5.—E. S. Donahay, Shorthorns, Newton, Ill.

Oct. 10.—T. C. Fonting & Sons, Moweaqua, Ill., Horses. Oct. 11.—C. H. Ponting & Sons, Moweaqua, Ill., Horses.

Oct. 16.—J. K. Alexander, Edenburg, Ill., Shorthorns. Oct. 17.—B. Hart, Edenburg, Ill., Poland-China.

Oct. 17.—Arthur H. Jones, Shorthorns, Delaware, O.

Oct. 17.—C. Ott, Shorthorns, Hedrick, Ill.

Oct. 18.—H. O. Minnis, Edenburg, Ill., Poland-China.

Nov. 14.—Arthur Cowan, Jr., Paulina, Ill., Shorthorns. Nov. 15.—S. P. Emmons, Littrell and others, Mexico, Mo. Shorthorns.

Nov. 19.—W. C. Chapman, Mt. Leonard, Mt. Waddell and Thos. Sawyer, Lexington, Mo. C. B. Smith, and N. W. Leonard, Fayette, Mo. Herfords. Sale at Kansas City, Mo.

Dec. 11 and 12.—K. A. Anderson and J. A. Funkhouser, at Kansas City, Mo. Herfords.

Dec. 13 and 14.—H. C. Duncan and Geo. Bushnell, at Kansas City, Mo. Shorthorns.

March 5, 1901.—T. J. Wornell, Mosby, Mo. Shorthorns, Kansas City, Mo.

the class of cattle that go into pure bred herds, they in turn have been tempted to take a red bull in preference to a roan, even when the red was not quite so good. Still the prejudice or craze is distinctly dying out, and a great many breeders tell us that they now have a large number of inquiries for bulls, one of the conditions desired being that it should be a roan. The general consensus of opinion among breeders in their talks among themselves at association meetings is that any one of the Shorthorn colors, or all of them blended together, is all right, provided the animal that wears the colors is a good one, and order that the same be observed and enforced throughout the state.

Whereas, bovine tuberculosis is a dangerous and infectious disease known to exist more or less extensively among the cattle of the states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota, California, Kentucky and Tennessee, and the Dominion of Canada.

Whereas, cattle affected with this disease being brought into the state of Missouri are dangerous to the cattle industry inasmuch as they are liable to communicate said disease to other cattle with which they come in contact.

Therefore, in order to more fully protect the cattle interests of the state, it is ordered that the introduction of cattle (cows, bulls and calves) from the above named states and Canada, into Missouri for breeding purposes, is prohibited after this date, except under regulations hereinafter provided.

1. Any shipper or owner of breeding cattle (cows, bulls and calves), in the territory scheduled above on account of bovine tuberculosis, desiring to ship such cattle into the State of Missouri, must, before offering the same for shipment to any railroad or other transportation company, or before driving the same into this state, have such cattle tested with tuberculin by a veterinarian designated by the live stock sanitary authorities of the state in which such cattle originate or by a veterinarian in the employ of the United States Bureau of Animal Industry, or by a veterinarian designated by the Missouri State Board of Agriculture.

2. If the veterinarian shall find, after a careful test with tuberculin, that the cattle destined for Missouri are free from tuberculosis, he shall issue, in duplicate, a certificate to that effect together with a record of all the temperatures taken in test. On the back of such certificate the owner and shipper of such cattle shall certify under oath that they are the same cattle referred to in the certificate of health issued by the veterinarian, the original of which shall be immediately forwarded to the secretary of the State Board of Agriculture at Columbia, Mo., and the duplicate delivered to the railroad or other transportation company, to be attached to the bill of lading of said cattle.

3. No transportation company shall accept any breeding cattle (cows, bulls or calves) for shipment into Missouri from any of the above-named territory unless the same shall be accompanied by the veterinarian's health certificate, as herein provided for. No transportation company shall accept from its connecting lines any cattle shipped in violation of these provisions.

4. The health certificate issued by the veterinarian as above provided shall not be construed to prohibit the live stock sanitary authorities of this state from making such further examinations and taking such further action as may be deemed necessary for the protection of the cattle interests of Missouri.

5. Cattle brought into Missouri from any of the above-named states and from Canada for the purpose of exhibition at county, district or state fairs shall not be subject to the above regulations; provided, however, that in the event sales shall be made from such exhibition cattle destined to points in Missouri, the animals sold shall be submitted to the tuberculin test before the sale is consummated and the cattle shipped to their destination. In case the test should show any such animal to be affected with tuberculosis, and should never show any signs of grass, and animals that have been finished on pasture should be dry fed for at least the last week before shipment. Inspection is now quite rigid at all markets, and one will only lose freight by sending animals that are diseased in any way, or that have abscesses, or show signs of emaciation or, in the case of sheep, that have scab. Such stock may have a value at home, where it can be treated and eventually put in condition, but it has none at the stock markets. The same is also true of pregnant animals. It is never worth while to send any that show signs of pregnancy. They are worth something at home, but they lose the shipper's freight if he is short-sighted enough to forward them to market.

6. The cattle sold were distributed as follows:

1. Missouri ..... 1,069 Kentucky ..... 13 Nebraska ..... 183 South Dakota ..... 11 Kansas ..... 654 Tennessee ..... 6 Texas ..... 382 Alberta ..... 6 Canada ..... 6180 Canada ..... 130 Oregon ..... 5 Colorado ..... 65 Michigan ..... 4 Ohio ..... 63 Wisconsin ..... 115 Virginia ..... 3 Nevada ..... 51 Maine ..... 34 New Mexico ..... 24 Minnesota ..... 25 West Virginia ..... 1 Wyoming ..... 22 Idaho ..... 18 Indiana ..... 14 New York ..... 1 Montana ..... 14

7. Cattle brought were:

1. 945 Herefords brought ..... 141,418.00

97 Shorthorns brought ..... 147,212.00

60 Aberdeen-Angus brought ..... 11,964.00

42 Galloways brought ..... 2,996.00

General average ..... 21,462.00

8. Cattle brought were:

1. 1,799.00

2. 3,220.00

3. 140.07

4. 5,710.00

5. 129.77

6. 1,799.00

7. 1,799.00

8. 1,799.00

9. 1,799.00

10. 1,799.00

11. 1,799.00

12. 1,799.00

13. 1,799.00

14. 1,799.00

15. 1,799.00

16. 1,799.00

17. 1,799.00

18. 1,799.00

19. 1,799.00

20. 1,799.00

21. 1,799.00

22. 1,799.00

23. 1,799.00

24. 1,799.00

25. 1,799.00

26. 1,799.00

27. 1,799.00

28. 1,799.00

29. 1,799.00

30. 1,799.00

31. 1,799.00

32. 1,799.00

33. 1,799.00

34. 1,799.00

35. 1,799.00

36. 1,799.00

37. 1,799.00

38. 1,799.00

39. 1,799.00

40. 1,799.00

41. 1,799.00

42. 1,799.00

43. 1,799.00

44. 1,799.00

45. 1,799.00

46. 1,799.00

47. 1,799.00

48. 1,799.00

49. 1,799.00

50. 1,799.00

51. 1,799.00

52. 1,799.00

53. 1,799.00

54. 1

## Horseman.



been hailed with general acclamation as a good thing by everybody identified with the trotting horse, and to a certain extent it is, but it is a not unmixed blessing if it is going to divert our race horses to private uses and curtail the operation of our tracks. The breeder or harness maker or wagon builder will look with approval upon the extension of the marts' interest, but the race track manager will see it in quite a different light. The situation is an awkward one, and it serves again to emphasize the fact that the horse product of the country is short. Prices must inevitably be higher yet, but that will not stop the amateur reinman, who is generally blessed with the means to gratify any fancy, and it looks as if the associations would have to hustle for the next few years to keep the tracks in operation.

The strong and increasing demand for fast horses, trotters and pacers, for road and speedway use, should, of itself, be very suggestive to owners and trainers as to the necessity of learning a race horse even something more than mere track manners, says the "Western Horseman." No one can tell how soon he may wish to change a track horse to a road horse, and, furthermore, as a road horse is now as valuable as a track horse, all roads should be educated for road use. Too many trainers, and owners as well, get it into their heads that a little road work is a dangerous thing for a horse in training, and hence too many developed track horses are absolutely unfit for road or speedway use. As the speed horse demand now runs every trotter and pacer used for racing purposes should first be "city broke," or, at least, thoroughly educated to road work. Necessity need be lost in the "road school," for it can be carried right along with the track schooling course, no horse doing the beat with every day track work. Indeed, about the surest plan to arrest speed development in a trotter, or pacer, is to give him track work every day in the week. Of course, green horses, neither old nor young, should not be "pounded around" over paved streets, with a view of improving their racing condition or developing their speed, but no physical harm will come to them through judicious exercise, even over paved streets and hard roads, while certainly much can be learned them by such a procedure that will add to their value greatly when they are wanted for road or city use. A "general education" is what all speed horses need.

A few years ago any "old horse" would do. Now the family horse must show style and be well bred, the roadster and gentleman's driver must show quality, action and speed, the doctor's horse must be bred to road 12 miles per hour, the business horse must be a good looker, rounded out, active and able to take the family to a Fourth of July picnic in good style, and the minister's nag—well it must be standard and registered bred in the purple, and combine in its blood and pedigree the heritage of the best equine species, says "Spirit of the West."

The filly at J. Malcolm Forbes' farm near Boston, by Imp. Meddler out of Nancy Hanks, 2:04, is said to have a strong trotting conformation and to display considerable speed aptitude at the harness gait. If this is true it is simply conclusive of the fact that the dam's influence was the more potent one in the production, says "Trotter and Pacer." If the filly ever becomes anything more than a commonplace trotter, it will be due not to but in spite of her sire. It is obviously certain that Imp. Meddler or any other deeply bred running horse could not possibly contribute anything to the propagation of speed at the trot. He might bring to the product something of stamina, or lung power, good bone and muscle, or other anatomical essentials, but the instinct or inclination to trot would all have to come from another source.

The New York "Herald" considers the horse and carriage trade a commercial thermometer. It indicates the exact degree of business prosperity, not only in New York but throughout the entire country. If there is general prosperity money flows freely and the horse and carriage channels receive their proportions. Then the desire for new horses, or more horses, or better horses, is gratified, and dealers scour the country for animals to supply the demand; old carriages are set aside, new ones take their places, extra vehicles are bought and factories are rushed with work, while the varied stock in the emporium begins a rapid change. This is now the condition, and the horse and carriage trade is feeling as it seldom does so early in the season. Not only are our own people making and arranging for purchase, but in the great mass of strangers who are visiting the metropolis for business and pleasure are hundreds who are looking after horses and vehicles to take, not only into every state of the Union, but to foreign countries.

The stallion record against time era began September 30, 1884, when Maxie Cobb scored 2:12%. "He was dethroned in 1889, by Axell (3), 2:12, the first and only three-year-old to take the title. Next came the Northern King," Nelson, who lowered the record three times in 1890, viz., 2:11%, 2:11% and 2:10%. Allerton deposed him by trotting in 2:10, September 4, 1891. Nelson equaled this mark 13 days later, and two days afterward Allerton settled the question of supremacy between them by trotting in 2:09%. At this time Charles Marvin was preparing Palo Alto for the stallion crown battle and won it November 7, 1891, in 2:08%, on the kite track at Stockton, Cal. The year 1891 had three stallion kings and kept racing enthusiasts in a ferment. It was a fitting close of the high-wheel sulky age. Kremelin was doubtless king in the first part of November, 1892, when he trotted in 2:08% and 2:07%, of course to a bicyclic sulky, and then Stamboul, 2:07%, the greatest of the Sultan line, wrested Kremelin's honors by scoring his tumultuous record at Stockton, November 23, 1892. Directum, the great four-year-old king of kings, thrice reduced Stamboul's mark, during the World's Fair year, twice against him in 2:07% and last of all his exceedingly hard to beat race record of 2:06%.

The unprecedented dearth of entries in almost all of the smaller eastern meetings this season is beginning to be generally noticed and track managers are casting about to find the cause of it, says "Trotter and Pacer." Never before have the fields been so small in the meetings which have been already held. It will be interesting and profitable to know the reason for this. Doubtless the backward spring is responsible in some measure, especially in the case of the meetings whose entries closed prior to June 1, but even within the past week some important meetings have been declared off for lack of entries, and it would be a mistake to attribute the cause solely to the unfavorable season. We are inclined to think that the growth of the interest in amateur racing may be responsible for a good deal of the trouble. The popularity of gentlemen's driving clubs and matinees driving has had a wonderful development during the past year or two, and the summaries of the races and chronicles of speedway doings record the name of many a horse which has been removed from the race track to gratify the recreation of the amateur sportsman. The growth of this branch of the sport has

### L. E. CLEMENT'S HORSE GOSSIP.

Editor RURAL WORLD: The "American Horse Breeder" of June 13th, under the caption of "Extinct Trotting Families," takes a view backward for 50 years, and names the extinct families as the Winthrop Messengers, Eatons, Drews, Rising Suns, Morris, Columbuses, Ethan Allens, Vermon, Black Hawks, Royal Georges, Harris' Hambletonians and George M. Patchens." Again, it says: "It is probable the Clays, Pilot, Jr., and Blue Bull will share the same fate in the near future."

The Clays are the oldest of all the trotting families and we have to day meritorious sires in that line. C. M. Clay, 22, has given us 16 sires of standard speed.

If there were none but Durangs and Crittenden it would be a long time before the Clays are counted among the extinct families. The Pilot, Jr., family has six sons that are sires of speed. Seventeen of his daughters produced 40 standard performers. Bayard has 11 sons that are sires of 16 standard performers, and his 23 daughters have produced 27. Clair is in the greatest brood mare list with four standard performers by as many sires. The family of Bayard inside of five years will have a greater showing of standard speed than the family of his sire, Pilot, Jr.'s, fastest was John Morgan, 2:24. Kitay Bayard, 2:12%, at one time held the world's record on a half-mile track. The family of Pilot, Jr., as represented in the descendants of Bayard, is not yet ready for oblivion.

The family of Blue Bull counting from the first of his descendants is now 30 years of age. In that time he has been the first sire to sire 50 standard performers. His daughters have taken the first place among dams of standard performers, not including some of the best performers in the 2:10 list, that are disputed. His daughter, Carrie Blackwood, is the only one with four in the 2:20 list but by four sires of different breeding, and all but one of these are the fastest performer by that sire. His double granddaughter, Ellen M., is the dam of two performers in the 2:10 list, with 106 winning heats in 2:25 or better, and an average record of 2:08%. A son of Carrie Blackwood is one of four sires with two of the performers holding average records of 2:06%. Bobby, a son of Blue Bull, sired the only 6-year-old mare with two trotters with race records, again the only mare with three with race records, when she herself was 7 years of age, and now has four with records from 2:26% to 2:13%, three of them entering the list as two-year-olds. Fleda Wonder, by Little Wonder, is the dam of three in the 2:20 list, and is the dam of the horse that holds the 3-year-old harness record on a half-mile track. Jim Wilkes has left four sires that are sires of standard harness speed, and as they are all comparatively young, it is not at all likely that the family will pass into disuse. I fear Mr. Farlin will not be a success as a prophet, if this is a criterion of his work in that direction.

I make an extract that seems to have turned out well for R. O. Harris of Sedalia, Mo.:

"There was fun for everybody at the Gross Pointe track yesterday, especially for the veterans of the trotting horse game who could not refrain from talking about a new arrival, says the 'Free Press' of Monday, June 11. Men have different ways of handling horses, but when extra effort was required of a team in hot weather, I have staid right in the stable at noon, giving water now and then, currying, washing shoulders and legs, cooling and cleaning the harnesses, giving grain in several small feeds. It is.

The harder the day's work is that you have to do, the slower you should start your team in the morning and at noon. Then, in an hour or so, when the horse's stomach has the food under control, when his blood is circulating freely, when his lungs have come to their full activity, then you can begin to push him. During the half hour before quitting gradually slack off again.

5. The harder the day's work is that you have to do, the slower you should start your team in the morning and at noon. Then, in an hour or so, when the horse's stomach has the food under control, when his blood is circulating freely, when his lungs have come to their full activity, then you can begin to push him. During the half hour before quitting gradually slack off again.

6. Most important of all, get your team into a state of perfect mental quiet and confidence in you, so that they will not waste their energies in constant fear of a slap, a yell or a hard word. Horses are as sensitive to blame and praise as we are, and the one depresses, the other elates their vital energies more than hard work.

### GOOD PRICES FOR PARK HORSES.

Trotting-bred park horses from the Chicago stables of M. H. Tichenor & Co. brought remarkably good prices at the American Horse Exchange, New York, Thursday night, June 14. The first eleven animals that passed under the hammer brought \$1,550, an average of \$1,060 each. J. Godfrey, acting as agent for an unknown principal, paid the top price, \$2,600, for Orval and Prince Arel, two big, slashing chestnut geldings of true form and showy action. One of the horses is a son of Allerton, 2:09%, and the other is by Lord Russell, brother to Maud S., 2:08%. The same buyer gave \$1,800 for Mikado, another superb specimen of horseflesh. This was the highest price paid for a single stepper during the sale. John Span was among the buyers. He bought Maxion and Redwood, brown geldings by Walsingham, for \$2,600, and Parcell and Newport, a slightly larger pair of horses, for \$2,300. The purchases were made for W. K. Knox, of Pittsburgh. The best sales were:

Maxion, br. g., 15 1/2 hands, 6 years, by M. H. Tichenor, and Redwood, br. g., 15 1/2 hands, 6 years, by Walsingham; J. F. Knox, Pittsburgh, \$2,600.

Parcell, br. g., 16 hands, 7 years, and Newport, br. g., 16 hands, 8 years; J. F. Knox, Pittsburgh, \$2,300.

Mikado, ch. g., 16 hands, 7 years; J. Godfrey, agent, New York, \$1,800.

Orval, ch. g., 15 1/2 hands, 6 years, by Allerton, and Prince Arel, ch. g., 15 1/2 hands, 8 years, by Lord Russell; J. Godfrey, agent, New York, \$2,600.

Godfrey, ch. g., 16 hands, 6 years, by Walsingham, and Redwood, br. g., 15 1/2 hands, 6 years, by Walsingham; J. F. Knox, Pittsburgh, \$2,600.

Vesper, b. g., 15 1/2 hands, 6 years, and Montero, b. g., 15 1/2 hands, 7 years; C. J. Campbell, New York, \$1,200.

Happy, b. g., 15 hands, 7 years; Walter Lee, Black Rock, Conn., \$1,500.

Corwall, b. g., 15 1/2 hands, 5 years, and Gillmore, b. g., 15 1/2 hands, 6 years; John Span, agent, Chicago, \$2,000.

Primrose, ro. g., 15 1/2 hands, 5 years, and Corinth, ro. g., 15 1/2 hands, 5 years; C. E. Quintin, agent, Trenton, \$500.

Pompey, g. g., 15 1/2 hands, 6 years; Mr. Peacock, New York, \$200.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

Later advices indicate a sale of R. E. Lee for upwards of \$3,000. It seems to have been a case where eccentricity has paid. D. F. Jordan of Sheldon, Mo., has in the stud Lofty Goldust, registered as a standard saddle stallion, by Horace Goldust, by Lofty Goldust, son of Goldust, 100, founder of the family, dam by Tom Crowder, second dam by Tom Hal. Star of Saline, 2:30, at Nevada, Mo., 15, 1/2 years, a stable companion. The union of these two Morgan horses should furnish some good material for roadster and farm horses, and a race horse is not among the impossible chances. Dr. A. J. Roberts of Fort Scott, Kan., is having a good run of custom for Harry Hodgen, 490, son of Belmont and Minnet, by Harry Hodgen.

</div



By the Faithful  
Use of PERRY DAVIS'  
**PAIN KILLER**

You can cure your Rheumatism, Neuralgia, Sciatica or Lumbar. Price 25 and 50 Cents at Druggists.

**PAGE**  
DID YOU EVER NOTICE  
PAGE FENCE CO., ALEXANDRIA, N. D.

**GOOD FENCE!**  
IDEAL HOME FENCE  
Marked neighborhood. Why not have  
both when you can make the best for  
20 to 25 cents a foot.  
A little inquiry into the merits of our  
fence will show you that it is the best.  
Write to-day for free Catalog.  
**KITELMAN BROTHERS,**  
Box 200, Middletown, Ind., U. S. A.

**YOU WANT FENCE—**  
WE WANT MONEY.  
We will exchange our fence for your  
money.  
We Make the Best Fence  
at a reasonable price.

**You Cannot Afford**  
to buy factory made  
fence when you can get  
the best fence at  
a low price.  
We have  
fence adressed.  
Write for  
free circulars.  
Liberal  
terms to agents.  
ACME FENCE MACHINE WORKS, Detroit, Mich.

**AS A CURE  
FOR HOG CHOLERA**  
AND AS A PREVENTIVE OF ALL GERM DISEASES.  
The medicine, so long and favorably known  
and manufactured by this company, comes  
as near to being

**AN ABSOLUTE SPECIFIC**  
for all forms of swine as any remedy sold  
for the cure of man or beast.

**SICK HOGS Rapidly Recover**  
when treated with this remarkable medicine when  
Wm. Hall's Hog Cholera Cure  
is administered according to directions.

(We have hundreds of testimonials on file.)  
Delivered at your express office, all charges prepaid  
upon receipt of price. Safe arrival guaranteed.  
One-half, better \$1.50. Postage 25c.

Address, Wm. HALL MEDICINE CO.,  
310 N. Main St., St. Louis.

**FOR FATTER SHEEP DIP YOUR SHEEP IN COOPER DIP ERADICATES INSECTS AND FLEAS.**  
Simple, easy to operate, durable, safe, half  
the cost of other dips, and better butter. Farmers and Agents  
Gold Mine. Price \$1.50 worth \$1.00. Send  
stamp for particulars. Agents in all cities.  
Automatic Cream Separator Co., Box 11, Quincy, Ill.

**SEE AND WONDER.**  
AUTOMATIC CREAM SEPARATOR.  
Simple, easy to operate, durable, safe, half  
the cost of other dips, and better butter. Farmers and Agents  
Gold Mine. Price \$1.50 worth \$1.00. Send  
stamp for particulars. Agents in all cities.  
Automatic Cream Separator Co., Box 11, Quincy, Ill.

**We are the largest manufacturers of Steel Wheels and Truck Wagons in the World.** Write for Catalogue, Havana (Ill.) Metal Wheel Co.

**MAGIC DIP NEEDLE!**  
For locating Gold and Silver Ore,  
Treasures, Gemstones, Claws  
and testimonials 2 cents.  
F. and M. Agency, Box 99, PALMYRA, PA.

**GOLDOMETER** in pocket case for  
locating Gold and Silver; also Rods and Needles.  
Circular 2 cents. B. G. STAUFFER,  
Dept. R. W., Harrisburg, Pa.

**\$800 TO \$1400** per year in the Mail.  
way. Mail. Entrance  
by examination. We prepare you for  
this or any other business. Write for  
Circular 21. The Business School, Lebanon, Pa.

**MINERAL BODIES** \$5 and up, guaranteed or money  
refunded. Circulars free.  
TEXAS BOD CO., Box 184, Dallas, Texas.

**POLAND-CHINAS.**

**WE HAVE** some fancy registered Poland-China  
hogs, registered Jersey cattle and Plymouth  
Rock chicks. Young stock for sale at all times.

**POLAND-CHINAS.**

**PARTICULARS** to buy good young stock can secure extra bargains  
by writing soon. We offer some very fine stock.  
Write to U. S. CHIEF TECUMSEH 2d 22767, Prince Hadley 15862 and Exposition 21521, and out of state to  
S. C. H. CO., Box 100, Toledo, Ohio, and  
Tecumseh blood of up-to-date breeding. S. W. COX,  
So. Greenfield, Mo., on K. C. & Memphis, R. R.

**VIVION & ALEXANDER,**  
FULTON, MO.

Breeders of the best strains of Poland-China  
hogs, registered Jersey cattle and Plymouth  
Rock chicks. Young stock for sale at all times.

**POLAND-CHINAS.**

At very reasonable prices and of the best breeding  
Registered stock. Write for prices.

**J. H. WAGENECK,** Enfield, Illinois.

**SOLD OUT**—All but a few August pigs. Outlook  
good for coming crop of pigs.  
B. G. Richard, Sturson, Mo.

**POLAND-CHINAS.** Gilt sows  
and individual merit combined.  
B. L. ORGAN, Carmel, White Co., Ill.

**DUROC-JERSEYS.**

**DUROC-JERSEYS**—10 head of pigs and sows, bred  
ready to ship. Satisfaction guaranteed.  
R. H. BAWTER, CHERWELL, Kans.

**DUROC-JERSEYS**—Registered stock. Pigs  
best breeding. Price list on application.  
J. H. HAYNES, Ames, Ill.

**Duroc Jersey and Berkshire Hogs!**

Extra breeding. Satisfaction guaranteed or you  
may return my expenses.  
B. C. WAGNER, Pass, Ill.

**LARGE ENGLISH BARKERIES** 100  
bushels per acre. Pig of either sex;  
best of breeding. P. F. G. CHAMBERS,  
Hoistons, Cal.  
G. W. MCINTOSH, Mo.

**Rose Hill Herd** of Duroc Jersey  
Hogs. A choice lot  
of February and  
March pigs for sale.  
Write me for prices.

**S. Y. THORNTON,** Blackwater, Mo.

**The Pig Pen.**

GESTATION OF SOWS.

According to Coburn, young sows carry their pigs from 100 to 108 days; old sows from 112 to 115 days. Spencer, writing of English pigs, says: "The variations in the time that a sow will carry her pigs are very slight, and these are pretty well regulated by the age and condition of the sow; thus, old and weakly sows and young sows will most frequently bring forth a day or two before the expiration of the sixteen weeks. Sows in fair condition will generally farrow on the 12th day, while strong and vigorous sows will frequently go a few days over time."

VALUE OF BREED AND TYPE.

In a recent careful experiment in feeding a lot of approved-type Berkshire and Poland-China hogs, and another lot of average mixed breeds, picked up with a view to get a lot that would fairly represent the average hogs of the vicinity, it was demonstrated that it required from 10 to 10 per cent more of the same kind of feed to make a given gain with the last lot than with the first, says the "Farm, Stock and Home." There is probably no animal that has responded so fully to improvement in breeding for a purpose as the hog. This experiment is a pointer on the necessity of getting the best types as rapidly as possible.

RETAIN THE SOWS.

It is never a good practice to breed from immature sows year after year. The practice of keeping brood sows till several years old should be commended and followed, says the "Farmers' Review." The continued breeding from immature animals is believed to have much to do with weakening the stamina of our hogs. It is even contended by some that we would have much less hog cholera were we to follow breeding only from mature animals. This is not always practicable, for sows must have their first litters at a young age, but it is entirely practicable to use the same sows for several years.

LITTERS SHOULD SUCK TILL EIGHT WEEKS OLD.

With reference to feeding young pigs before and after weaning, I would say, start to feed your pigs at about four weeks old, writes Thomas Teasdale in the "Farmers' Advocate." Make a low, narrow trough, so the pigs will not have to climb into it to get their feed. Put a little warm sweet milk in the trough, only a very little at first, because if they don't drink it up soon it will get sour, especially if the weather is warm. You will soon find out how much they will drink up quickly, and don't give them any to leave. Feed three times a day. In about a week, add a little shorts to the milk, a little later add some barley meal. Feed in this way till the pigs are eight weeks old, and by that time they will be ready to wean, and, if properly attended to, should grow right along. Give same kind of feed for a week or two after being weaned. I don't think it would be any detriment to the sow to let pigs suck any week.

PROPER MATING FOR SWINE.

The swine breeder who seeks to improve his herd knows the importance of care in mating so that there shall be a harmony between sire and dam, and that the one shall be strong in points where the other is deficient, in order to secure good pigs. The growth of swine for the market must also pay attention to proper mating or he may have trouble at farrowing time. On point a correspondent to the "Home-stead" writes as follows:

"I always have trouble with my sows at farrowing time. My sows this spring will weigh from 225 to 230 pounds. They were born to a Chester White male, have run on blue grass pasture all spring and for two months I have fed bran and shorts in the shape of a thick slop. I gave them all they would drink twice a day. They are in good condition. They began farrowing about a week ago, and every sow has to have help. The pigs are very large. The sows are Poland-Chinas. Can it be prevented by breeding or feeding? My only trouble in hog raising is at farrowing time."

There is nothing in the foregoing that positively reveals the cause of the trouble. We strongly suspect, however, that the difficulty lies in improper mating. The generally accepted maxim with regard to the selection of breeding stock is that large roomy, and even a little coarse sows should be chosen as breeders and that they should above all things have length and roominess, and then if a little fining down seems desirable, it can be done by a proper choice of a male of somewhat more refinement. It seems to be our correspondent's practice to reverse this idea. His sows are Poland-Chinas weighing from 225 to 300 pounds, and the possibility is that they lack roominess. Possibly they may have been selected by the eye of the farmer, which is often pleased with the smooth, round, "chubby" gilt. Sows of this kind are then mated to a Chester White boar. A general characteristic of the latter breed is size, large bone, and as compared with other breeds, considerable coarseness. This kind of mating would be very likely to produce very large pigs and trouble at farrowing time, and it is probable that this is at the bottom of our correspondent's difficulty. We say nothing about the cross breeding, although we cannot approve of it, but the probabilities are strong that if the cross were the other way, namely, a Poland-China male on Chester White females, the trouble complained of would not exist. At other points this correspondent's management seems to be good. The run on blue grass pasture and the feeding of bran and shorts for two months prior to farrowing time are elements of good management, and we believe that the difficulty complained of could be prevented by changing the breeding practice.

SWINE PASTURES.

Where clover will grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer." Other pastures are not necessary. Winter rye will come first in order and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

Winter rye will come first in order

and when kept eaten down closely will be much relished by swine. After winter rye will come clover of the medium variety. Then early sown rye will come in just after the first growth of clover has been eaten down. Later the second growth of medium clover will be on hand, and still later late sown rye will carry the swine right on until the approach of winter. Where these two crops will grow in good form the swine grower need not trouble looking about for any other. Of course other pastures may be grown, but usually there is not very great need for growing them.

Where clover will not grow readily the best swine pastures include clover, rye and rye, says Prof. Thomas Shaw in the "Farmer."

Other pastures are not necessary.

## The Markets

**WHEAT**—Milling demand light and the early prices "out of sight" after future wheat broke down. Early sales by sample at \$7.00/bushel for No. 2 red, \$6.50 for No. 3 white, \$6.25 for No. 4 white, \$6.00 for No. 4 mixed, \$6.75/bushel for No. 4 hard and \$6.00 for No. 2 (white mixed) spring. No. 2 hard quotable at \$7.00/bushel and No. 3 do. at \$6.50/bushel.

**CORN**—The crash in wheat caused a break in corn, July declining to 40¢/bushel and Sept. then offered at 41¢, but was stronger late in the day, closing with buyers at 41¢. Early sales for No. 2 white, \$6.00; No. 4 mixed, \$6.75/bushel for No. 4 hard and \$6.00 for No. 2 (white mixed) spring. No. 2 hard quotable at \$7.00/bushel and No. 3 do. at \$6.50/bushel.

**OATS**—On trk. at 40¢/bushel; No. 2 at 24¢/bushel; No. 2 Northern at 26¢; No. 2 white at 27¢/bushel and the best not worth over 28¢. No. 2 at 26¢/bushel mainly for No. 1. Lots at 26¢/bushel mainly for No. 1. The top rates were not obtainable late.

**RYE**—Grade No. 2 not obtainable below 40¢, at which latest sale made from elevator.

**MILL-FEED**—Strong, as supplies scanty. Spring wheat bran in New England is now \$10 per ton. Sales: E. trk. or mixed in large lots, \$10 per ton; bran at 40¢/bushel in 100-lb. bags, \$10 per barrel at 72¢. Country this side \$8 for bran and 76¢ for ships.

**HAY**—Firm for choice timothy, and clover, \$12.50 per ton, and such as hay scarce. Most the offerings low grades and mixed very dull. Prices on trk. now range: Timothy \$12.50/bushel for choice, \$12.00/bushel for No. 10; timothy \$12.00/bushel for No. 1; timothy \$11.50 for choice, \$7.50/bushel for No. 1, \$7.00/bushel for No. 2, \$6.50/bushel for No. 3. Clover—\$9.00/bushel and wheat and oats at 40¢/bushel.

**PRICES ON CHANGE**

The following table shows the range of prices in cents and dollars for wheat, oats, corn, etc.

**Closed Saturday.** **Range** **Closed To-day.**

**Closed Saturday.**